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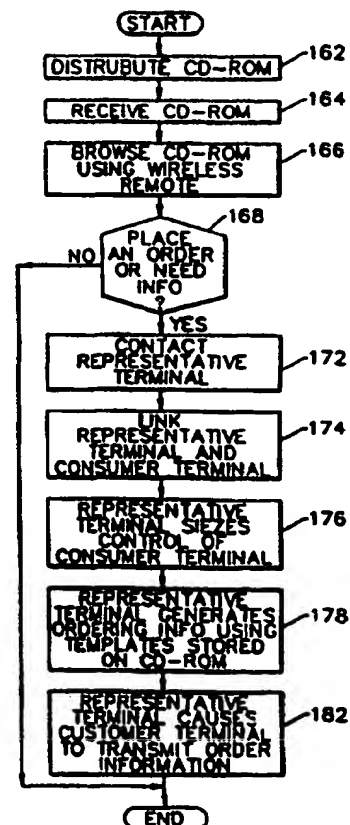
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(54) Title: METHODS AND SYSTEMS FOR BUYING AND SELLING GOODS AND SERVICES USING NETWORK OF LINKED COMPUTER TERMINALS

(57) Abstract

Goods and services are purchased by consumers using a network of consumer terminals and representative terminals, and a removable media such as a CD-ROM which includes catalogs of goods and services from multiple sources. The consumer terminal includes a removable media reader such as a CD-ROM reader and a wireless remote control for controlling the media reader in response to consumer commands. When the consumer reaches a decision concerning the goods or services, contact is initiated with a representative terminal. Upon initiating contact, a representative terminal is linked to the consumer terminal for data communications therebetween. The representative terminal seizes control of the consumer terminal so that the representative terminal remotely controls operation of the consumer terminal. The representative at the representative terminal and the consumer at the consumer terminal engage in verbal dialogue concerning the goods or services to be ordered, and an order form is filled out by the representative at the representative terminal, using templates which are stored at the consumer terminal. When complete order information is obtained, the representative controls the transmission of the ordering information from the consumer terminal to the representative terminal, to thereby cause the consumer to purchase the goods or services. The consumer terminal is as easy to use as a television, and the selection and ordering takes place as part of interaction with a human representative at the representative terminal.



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METHODS AND SYSTEMS FOR BUYING AND SELLING
GOODS AND SERVICES USING NETWORK
OF LINKED COMPUTER TERMINALS

Cross Reference to Related Applications

This application is a continuation-in-part of
copending Application Serial No. 08/236,482, filed May
2, 1994, which is itself a continuation of Application
5 Serial No. 08/023,609, filed February 26, 1993, now
abandoned, which is itself a divisional of Application
Serial No. 07/567,306, filed August 14, 1990, now U.S.
Patent 5,231,571.

Field of the Invention

10 This invention relates to consumer sales
systems and methods and more particularly to computer-
based consumer sales systems and methods.

Background of the Invention

Traditionally, most consumer goods and
15 services are purchased at retail outlets, such as
retail shops, dealerships and banks. As used herein,
"goods and services" include, but are not limited to,
the purchase by an individual of any type of goods and
any type of services, such as insurance, banking, and
20 investment instruments. In order to increase the
convenience of consumer purchases, stores, banks and
other sales outlets have been grouped into shopping

-2-

mall. The number and size of shopping malls reflects the consumer's desire to conveniently purchase goods and services from a plurality of sources at one location.

5 At the same time, alternative sales channels are also proliferating. These alternative sales channels cater to a consumer's desire to purchase goods and services from the convenience of the home. Thus, for example, mail order catalog sales are increasingly
10 being used by consumers to avoid the inconvenience of purchasing goods at a retailer's location. Home shopping networks have also been established on cable television, wherein goods and services are marketed.

 These alternative sales channels allow the
15 consumer to shop for goods and services from the convenience of the home. However, these alternate sales channels also have disadvantages. For example, a consumer may not have a catalog for the type of goods which are desired, either because a catalog was never
20 received or the catalog was discarded upon receipt. Home shopping networks may not offer the particular goods and services which are desired by the consumer. Moreover, the consumer must wait for the appropriate time slot during which the desired goods are offered
25 for sale on a home shopping channel. Typically, the consumer does not know in advance when particular types of goods are going to be offered for sale.

 Attempts have also been made to use computer terminals for the sale of goods and services. For
30 example, U.S. Patent 4,528,643 to Freeny, Jr. describes a point-of-sale system which produces and dispenses tape, disks or other material based on user requests. Computer terminals have also been linked into networks. For example, U.S. Patent 5,053,956 to Donald et al.
35 describes an interactive system for retail transactions, such as carpet sales. Images of the items to be sold are stored on a laser disk. A

keyboard is used to access the stored images. The retail transaction system can be connected to a remote station for transmission of transaction information to the remote station or transmission of price and/or availability information from the remote station.

Unfortunately, computer-based sales systems and methods have met with limited success, for at least two reasons. First, they reduce or eliminate human interaction, which is an important part of a sales transaction. Moreover, most consumers are extremely uncomfortable with computers. Thus, even when computer terminals are rendered "user-friendly", they are still typically more difficult to operate than a television or than browsing through a printed catalog.

15 Summary of the Invention

It is therefore an object of the present invention to provide computerized methods and systems for buying and selling goods and services.

It is another object of the present invention
20 to provide computerized systems and methods for buying
and selling goods and services which reduce the need
for multiple retailer shopping malls.

It is yet another object of the present invention to provide computerized systems and methods for buying and selling goods and services which do not eliminate human interaction from the transaction.

It is still another object of the present invention to provide systems and methods for operating computer terminals for buying and selling goods and services, which can be as simple as watching television or browsing through a printed catalog.

These and other objects are provided according to the present invention by systems and methods of purchasing goods and services by consumers using a network of consumer terminals and representative terminals and a removable media, such as

-4-

a CD-ROM, which includes catalogs of goods and services from multiple sources. The removable media also includes templates which are used for ordering the goods and services. When a consumer wishes to purchase
5 goods and/or services, the consumer inserts the removable media into a consumer terminal. The consumer terminal includes a removable media reader, such as a CD-ROM reader, and a wireless remote control for controlling the media reader in response to consumer
10 commands. Thus, the consumer browses through the catalog of goods and services using the wireless remote control and the consumer terminal. The catalog is displayed on a television, or on a computer display. Eventually, the consumer at the consumer terminal
15 decides to purchase goods or services from one of the catalogs in the CD-ROM, or decides he needs help to make a selection.

Upon reaching a decision concerning the goods or services, contact is initiated with a representative
20 terminal which is associated with the selected goods or services. Contact may be initiated manually by calling a telephone number which is displayed on the display, for the appropriate catalog. Alternatively, contact may be initiated automatically when the consumer
25 presses an "ORDER" button or "HELP" button on the wireless remote control or responds to an ORDER or HELP prompt or selection on the display.

Upon initiating contact with a representative terminal, a representative at the representative
30 terminal then guides the consumer through the ordering or selection process. The representative terminal is linked to the consumer terminal for data communications therebetween. The representative terminal then seizes control of the consumer terminal, so that the
35 representative terminal remotely controls operation of the consumer terminal. A method for providing personal financial services, wherein a representative terminal

-5-

seizes control of a customer terminal, is described in parent Application Serial No. 07/567,306 entitled "Personal Financial Assistant Computer Method", now U.S. Patent 5,231,571 to coinventor D'Agostino, assigned to the assignee of the present invention, the disclosure of which is hereby incorporated herein by reference.

The representative at the representative terminal and the consumer at the consumer terminal engage in verbal dialogue concerning the goods or services to be ordered. The representative can show a multimedia presentation of the goods or services, preferably using a multimedia presentation which is stored at the customer terminal. An order form or other appropriate form is filled out by the representative at the representative terminal, using templates which are stored at the consumer terminal, preferably in the CD-ROM. When complete order information is obtained, the representative controls the transmission of the ordering information from the consumer terminal to the representative terminal, to thereby cause the consumer to purchase the goods or services.

From a consumer standpoint, the present invention is as easy to use as a television. A remote control, preferably similar to a television remote control, is used for browsing through the catalogs on the CD-ROM. Input of ordering information is performed by the representative at the representative terminal. Thus, the consumer need only watch the television as he would watch a television program, while conversing with the representative over the telephone. Moreover, since selection and ordering takes place as part of interaction with a human representative at the representative terminal, the vital interactive component of shopping is maintained.

-6-

Finally, by placing multiple catalogs on the CD-ROM, the consumer is given access to large quantities of goods and services at the time he wishes to order goods or services. The consumer need not turn on a television home shopping network and wait until appropriate goods or services are offered for sale. Since the multiple catalogs are contained on a CD-ROM, it is difficult to lose or misplace individual catalogs. Moreover, since the CD-ROM can be updated at regular intervals, old catalogs will not be erroneously saved.

A consumer terminal according to the present invention is designed for simple operation by a consumer who knows how to operate a television but is not computer literate. The consumer terminal is preferably housed in a small housing which contains a media reader, such as a CD-ROM reader, for receiving a removable media including a plurality of catalogs of goods and services from a plurality of sources. A wireless remote control is operable to control the media reader in response to reader commands to browse the catalogs. The consumer terminal preferably connects to a television, although other displays may also be used. The consumer terminal also includes a data communications port, such as a multiplexer/modem which is used to link the consumer terminal to a representative terminal for data communications therebetween.

A microprocessor or other controller in the consumer terminal, preferably operates a stored program to allow a linked representative terminal to seize control of the consumer terminal, so that the representative terminal remotely controls operation of the consumer terminal. A stored program also generates ordering information using templates which are included on the CD-ROM, under remote control of the representative terminal, and transmits the generated

-7-

ordering information to the representative terminal via the data communications port under remote control of the representative terminal. Thus, the consumer terminal may be a small, low cost terminal with minimal user controls. Goods and services may thereby be ordered from a plurality of sources, without requiring computer literacy and without losing the human touch of a conventional sales transaction.

Brief Description of the Drawings

10 A preferred form of the invention is illustrated in the accompanying drawings which:

Figure 1 is a schematic block diagram of a personal financial assistant computer system according to U.S. Patent 5,231,571;

15 Figure 2A is a perspective view of a consumer terminal which may be used in the system of Figure 1;

Figure 2B is a perspective view of a representative terminal which may be used in the system of Figure 1;

20 Figure 3A is a schematic block diagram of the customer terminal hardware;

Figure 3B is a schematic block diagram of the representative terminal hardware;

25 Figure 4A is a schematic block diagram of the consumer terminal software;

Figure 4B is a schematic block diagram of the representative terminal software;

Figure 5 is a perspective view of a consumer terminal according to the present invention;

30 Figure 6 is a schematic block diagram of the consumer terminal of Figure 5;

Figure 7 is a flow chart illustrating operation of the consumer terminal and representative terminal according to the present invention; and

-8-

Figure 8 illustrates a stored template which is displayed by the consumer terminal during the operations of Figure 7.

Detailed Description of Preferred Embodiments

5 The present invention now will be described more fully hereinafter with reference to the accompanying drawings, in which preferred embodiments of the invention are shown. This invention may, however, be embodied in many different forms and should
10 not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. Like numbers refer to like
15 elements throughout.

Prior to describing systems and methods for purchasing and selling goods and services according to the present invention, a personal financial assistant system and method according to parent application
20 Serial No. 07/567,306 to co-inventor D'Agostino entitled *Personal Financial Assistant Computer Method*, now U.S. Patent 5,231,571, will first be described. The '571 patent provides a breakthrough in the delivery of personal financial services using a network of
25 computer terminals.

Referring now to Figure 1, a block diagram of a personal financial assistant computer system according to U.S. Patent 5,231,571 will now be described. The personal financial assistant system
30 provides a number of representative terminals 12A...12Y located at one or more central locations. The representative terminals may also be referred to as central terminals or host terminals. The central location provides a working environment for financial
35 institution representatives who are knowledgeable in the personal financial services being offered. A

-9-

number of representatives may be located at a given central location. Each representative may be knowledgeable in one or more of the personal financial services offered.

5 A plurality of customer terminals 14A...14X may be located in financial institution branch offices or other locations including shopping centers, airports, and other publicly accessible facilities. The customer terminals may also be referred to as
10 remote terminals, or, because they are often located in a freestanding booth, as booth terminals.

 Still referring to Figure 1, a number of communication links are provided among terminals 12 and 14. In particular, telephone links (audio or video
15 telephone) 16, shown in solid lines, allow a customer at each customer terminal 14 to establish telephone communications with a representative at a representative terminal 12 for interactive voice and/or video communications. Data links 18, shown in dotted
20 lines, also allow a representative at a representative terminal to control the display of information at a customer terminal 14, using an input device at the representative terminal 12. It will be understood by those having skill in the art, that data links 18 may
25 also be implemented using telephone links.

 In operation, a customer approaches a customer terminal, for example customer terminal 14A located in a financial institution branch office or some other public facility. The customer will pick up
30 a phone receiver at the customer terminal and select a desired personal financial service such as "insurance", by depressing an "insurance" button. Depression of the "insurance" button will cause the phone autodialer to dial the phone number to establish phone communications
35 with a representative terminal for insurance, for example representative terminal 12B. A financial institution representative located at representative

-10-

terminal 12B will receive the phone call from the customer located at customer terminal 14A. The particular financial institution representative who receives the customer's phone call will be

5 knowledgeable in insurance. If one financial institution representative is busy, the incoming customer call may be automatically switched to an available financial institution representative, using techniques well known to those having skill in the art.

10 The representative answers the incoming customer call, introduces himself and establishes a data link 18 from representative terminal 12B to the customer terminal 14A. The representative, using the keyboard or other input device of his representative

15 terminal 12B, then seizes control of the customer terminal 14A via the data link 18. After seizing control, he may cause a digitized video image of himself to appear on the display of the customer terminal. Once introductions are made over the phone

20 line 16, the financial institution representative will cause a menu to appear on the display of the customer terminal, thereby displaying different categories of personal financial services available to the customer. After discussion, the customer will verbally select a

25 particular service category. In response to this selection, the representative will use his input device to indicate the customer selection on the customer terminal, and will use his input device to step through the available products and options for the selected

30 service category. Once the customer has decided upon the desired product and options, the representative will fill in a computerized financial services product form with the personal and financial service information obtained from the customer.

35 If the customer desires a hard copy of the completed form, the representative will control the customer terminal, causing it to print the completed

-11-

form on a printer at the customer terminal. The printed form may be the application/contract for the personal financial service product selected by the customer. The customer may then sign the

5 application/contract and provide payment for the service with a credit card over the phone to the financial institution representative. Alternatively, the customer may take the application/contract with him for later execution and deliver the executed

10 application to the appropriate financial institution branch office, or mail the executed application to the financial institution main office.

The representative terminals 12 can be grouped into regional or district offices. Each

15 regional office can handle one type of personal financial service or many types of services. For example, separate groups of representatives may be located in central offices in the northeast, southeast, midwest, northwest, and southwest regions of the United

20 States. Physical separation of the representatives may provide greater network integrity. If one of the locations becomes inoperable due to uncontrollable circumstances such as a power failure, all incoming customer calls can be transferred to another regional

25 office. Alternatively, one location can handle a single type of financial service for a large geographic area. Furthermore, the representatives may be trained in more than one primary service, so that all customer calls can be handled. Other groupings of

30 representatives and representative terminals may be provided depending upon the range of services covered, the volume of customer calls and other factors.

It will be understood by those skilled in the art that, as shown in Figure 1, a data link 18 between

35 a representative terminal and customer terminal can be provided separate from a telephone link 16 between the customer terminal and the representative terminal.

-12-

Alternatively, a single link may be provided for transmission of voice (or video) and data. In practice, the voice and data links will often be implemented using the telephone system. This linking
5 of representative terminals to customer terminals for voice and data communications will be understood by those having skill in the art and therefore, no further description is necessary.

Referring now to Figures 2A and 2B, a
10 perspective view of the environment of a customer terminal 14 and a representative terminal 12, respectively, are illustrated. In Figure 2A, the customer terminal 14 may include a housing or booth 20. A display 24, such as a cathode ray tube display, is
15 mounted in the housing 20, for viewing by a customer. A printer 28 is also accessible through the housing 20, permitting printing of financial service product applications/contracts for the customer. A central
20 processing unit, including a disk drive and a modem, is concealed within housing 20 and is generally inaccessible to the customer. A hidden keyboard may also be provided within the housing, for use by service technicians. The keyboard is not used by the customer, because he does not operate the customer terminal.

25 A telephone 30, which may be mounted in the upper portion of the housing 20, permits a customer to call a financial institution representative located at a central office to discuss personal financial services. Telephone 30, in a preferred embodiment, is
30 an autodialing telephone, so that a customer can simply pick up the receiver 30A and press a key or button 30B which is identified with a particular personal financial service. Phone 30 then automatically dials the appropriate financial institution representative
35 knowledgeable in the financial service identified by the "punched" key 30B on the face plate of telephone 30. A magnetic stripe reader 32 may also be provided,

-13-

to permit reading of data stored in a magnetic strip media on a credit card.

The central processing unit of the customer terminal may comprise a microcomputer, such as an IBM PS/2 Model 55SX having 2 megabytes of random access memory, and an internal hard disk magnetic storage drive manufactured by International Business Machines Corporation, Boca Raton, Florida. Display 24 may be an IBM 8512 Color monitor. The modem connected to the central processing unit to permit data communications with representative terminals, may be a Microcom QX/12k Modem manufactured by Microcom, Inc., Danbury, Connecticut. Printer 28 may be an HP Laser Jet III Printer manufactured by Hewlett-Packard Company, Atlanta, Georgia. Telephone 30 may be a DecTel T-100 6 Button Telephone, manufactured by DecTel, Inc., Farmingdale, New York. Finally, magnetic strip reader 32 may be an IBM 7312 Magnetic Strip Reader.

It will be understood by those having skill in the art that many other microcomputers may be used for the components of customer terminals 14. Moreover, a microcomputer need not be used. Rather, a single passive ("dumb") display, an "intelligent" display, or a custom designed terminal may be used. However, with the advent of low cost microcomputers, a microcomputer will typically be used.

Referring to Figure 2B, a financial institution representative terminal 12 is illustrated. Representative terminal 12 typically consists of a central processing unit 42 and a display 44 connected thereto. Additionally, input device 46, for example in the form of a keyboard, is connected to central processing unit 42 permitting entry of customer data and personal financial assistant system commands by the representative.

Referring again to Figure 2B, a modem (not shown) is also connected to central processing unit 42,

-14-

to permit data communications between central processing unit 42 of a representative terminal 12 and the central processing unit of a remote terminal 14. Printer 50 is also connected as a peripheral device to the central processing unit 42. It permits printing of various documents by the financial institution representative, including financial service product applications/contracts. Finally, telephone 52 is provided at the financial institution representative station permitting voice (or video) communications between a financial institution representative and a customer located at a customer terminal.

The central processing unit 42, display 44, modem and printer 50 may use the same component models described for the customer terminal of Figure 2A. Telephone 52, preferably a 3100-TJE Telephone manufactured by American Telephone & Telegraph Technologies, Basking Ridge, New Jersey, may provide a headset in addition to a hand receiver permitting the financial representative to communicate over the phone with a customer in a hands free manner, so the representative is free to operate the keyboard 46. Alternative means for providing hand-free telephone communications includes, but is not limited to, a speaker phone. It will be understood that phone 52 need not be an autodialing phone. However, it preferably includes a display which identifies the originating number of an incoming call, so that the appropriate customer terminal can be identified.

Referring to Figures 3A and 3B, schematic block diagrams of the hardware components of the customer terminal 14 and representative terminal 12 of Figures 2A and 2B, respectively, are illustrated. Referring to Figure 3A, customer terminal 14 contains a central processing unit 22. An input device in the form of keyboard 25 is provided. As previously described, keyboard 25 is hidden in the housing 20 of

-15-

customer terminal 14. It may be accessed by a technician to permit hardware and software maintenance. Display 24 is connected to the central processing unit 22 permitting display of financial services and options for each financial service for viewing by the customer at the customer terminal.

A number of other peripheral devices are also connected to the central processing unit 22 in the customer terminal 14. Modem 26 permits data communication between processor 22 of the customer terminal and processor 42 of the representative terminal 12. Printer 28 provides an output device for printing financial service product applications/ contracts as directed by the financial institution representative via the representative terminal 12. Magnetic strip reader 32 permits entry of personal customer data which may be stored in a magnetic media on a card. Finally, telephone 30 allows a customer to orally communicate with a financial institution representative located at a representative terminal. Telephone 30 is preferably an autodialing telephone whereby a customer simply picks up the receiver and presses the button labelled with the desired personal financial service.

Referring now to Figure 3B, representative terminal 12 contains a central processing unit 42 which may be in the form of a personal computer, including a display 44 and an input device, i.e. keyboard, 46. Modem 48 permits data communication with customer terminals. Printer 50 allows hard copies to be printed including financial service product applications/ contracts. Finally, telephone 52 permits telephone communication with customer terminals. Voice and data communications via the telephone and modem may take place across either a single link, or two links 16 and 18, as shown. Telephone 52, in a preferred embodiment, permits hands free operation to permit oral

-16-

communications with a customer via the telephone without hindering the financial institution representative's manipulation of keyboard 46.

Referring now to Figures 4A and 4B, a
5 schematic block diagram of the software for both the customer terminal and the representative terminal will now be described. In general, the software of the customer terminal runs on the central processing unit 22 located in the customer terminal 14. Similarly, the
10 software for the representative terminal runs on the central processing unit 42 located in the representative terminal 12. In operation, the financial institution representative controls the remote customer terminal hardware and software using
15 the hardware and software of the representative terminal. This permits the customer at the customer terminal to simply talk to the representative located at the representative terminal over the telephone while viewing the personal financial services information
20 being displayed on display 24. The financial service information displayed on display 24 at the customer terminal is controlled by the financial representative via the keyboard 46 of the representative terminal. In other words, the representative's key strokes are
25 transmitted across the link 18 and control operations of central processing unit 22. Screen images are displayed on display 24 and are also echoed back on link 18 to appear on display 44. It will be understood by those skilled in the art, that data may also be
30 transmitted across the link 18 between the representative terminal and the customer terminal. Control of the customer terminal by the financial representative via the representative terminal permits the customer to simply view the financial information
35 without worrying about operating a financial service computer system.

-17-

Referring to Figure 4A, a schematic block diagram of the customer terminal software is illustrated. At the lowest level, the operating system software 60 is provided. The operating system software is preferably PC-DOS Version 3.30 which is available from International Business Machines Corporation, Boca Raton, Florida. The operating system software, as understood by those having skill in the art, causes the hardware components to operate in combination with one another by accepting input data, processing input data, and producing output data.

Communications software 62 runs on top of the operating system. This software permits the keyboard of the representative terminal to control operation of the customer terminal. Operation of the communication software will be understood by those having skill in the field of computer communications. Communications software 62 is preferably Carbon Copy Version 5.1, available from Microcom, Inc., Danbury, Connecticut.

Menu software 64, runs on top of communications software 62. The menu software provides a user interface for financial representative operation of the presentation/application software as well as viewing of the financial services information displayed on display 24. Menu software 64 is preferably Direct Access Version 5.0 available from Delta Technology International, Inc., Eau Claire, Wisconsin.

Finally, the presentation and applications software 66 both run on top of menu software 64. The presentation software permits the financial representative to display the financial service products and options for each individual financial service on display 24. This permits the customer to select the desired financial service category and product and all options for the individual financial service product. The presentation software may be

-18-

written using any high level computer programming language such as Basic, Pascal or C.

Applications software 66 also "runs" on top of menu software 64. Applications software 66 may be custom software which permits the financial representative to enter the customer information as well as the selected financial service product and option information via keyboard 46, resulting in temporary storage of the entered data in the customer terminal central processing unit 22. The applications software also permits the financial representative to cause the customer terminal to print the entered personal customer information and financial service information on printer 28. The printed information appears on a computer stored form. This printed form containing the information may be the application/contract for the selected personal financial service product. The applications software 66 will typically be custom designed for each financial service product, and may be preexisting software used by the financial service provider in stand-alone systems.

Referring to Figure 4B, the schematic block diagram of the representative terminal software is illustrated. Operating system software 70 runs on central processing unit 42 of the representative terminal. Operating system software 70 permits the hardware components of the representative terminal to accept input data, process input data, and produce output data. Similar to operating system software 60, operating system software 70 may also be PC/DOS Version 3.30. Communications software 72 runs on top of operating system software 70. Communications software 72, similar to communications software 62, is preferably Microcom Carbon Copy Version 5.1. Similar to communications software 62, communications software 72 allows the keyboard of the representative terminal to control operation of the customer terminal.

-19-

Accordingly, a financial representative located at the representative terminal controls the customer terminal by using key strokes which are transmitted across the link between the representative terminal and the
5 customer terminal.

In one embodiment, no applications software is stored in the memory of the representative terminal because all applications software is located in the customer terminal. However, it will be understood by
10 those having skill in the art, that applications software and data may also be stored in the representative terminal in order to process data at the representative terminal.

Referring now to Figure 5, a perspective view
15 of a consumer terminal according to the present invention is shown. The consumer terminal is labelled 114, and it will be understood that a consumer terminal 114 may be substituted for one or more customer terminals 14A-14X in the network of Figure 1. As shown
20 in Figure 5, the consumer terminal 114 is preferably housed in a compact housing 116, which may be placed on a television 118. Television 118 is preferably utilized as the display for consumer terminal 114, although conventional computer displays may also be
25 used. Preferably, consumer terminal 114 includes minimal operational controls. Thus, as shown, consumer terminal 114 includes a media reader, such as a CD-ROM reader 122, a remote control sensor 124 for sensing wireless remote control signals 126 from wireless
30 remote control 128, and a power switch 132. Other simple operational controls may also be provided.

The consumer preferably controls consumer terminal 114 using wireless remote control 128. Accordingly, wireless remote control 128 includes a
35 plurality of user input means such as keys 134 similar to a television remote control. As part of the sales transaction, the consumer also talks to a

-20-

representative at a representative terminal 12 (Figure 1). Accordingly, consumer terminal 114 may also be connected to a conventional telephone. Alternatively, as shown in Figure 5, a telephone speaker 136 and microphone 138 may be built into wireless remote control 128.

Referring now to Figure 6, a schematic block diagram of consumer terminal 114 is illustrated. As shown, CD-ROM reader 122 accepts a CD-ROM 142. The CD-ROM includes a plurality of catalogs of goods and services from a plurality of sources and also includes templates which are used for ordering goods and services and for providing other display screens as will be described below. A central processing unit (CPU) 144 or other controller controls operations of the consumer terminal 114. CPU 144 may be a microprocessor or any other conventional electronic controller. A conventional remote control interface 146 is used to interface with wireless remote control 128. A display driver 148 interfaces with television 118 or another conventional display. A data communications device, such as a multiplexer/modem 152 is used to provide communications to the central terminal via data link 18. The modem may be used to provide data communications between consumer terminal 114 and a representative terminal 12. Audio communications may be provided from an audio device, such as telephone 154, over a separate telephone line. Alternatively, the audio communications may be multiplexed with the data communications using the multiplexer 152. As described in connection with Figure 5, the telephone 154 may be a separate telephone, or may be built into the wireless remote control unit 128. The design of each of the components of consumer terminal 114 is known to those having skill in the art and need not be described further herein.

-21-

A schematic block diagram of the software for the consumer terminal 114 is similar to that illustrated in Figure 4A. The operating system software 60 is preferably Microsoft Windows or any other operating system software. The operating system software 60, communication software 62, menu software 64 and presentation and application software 66 are all preferably stored on CD-ROM 142, so that the most current versions are always used and the software need not be transmitted across data link 18. Alternatively, this software can be stored in terminal 114 on a hard disk, ROM or other conventional nonvolatile memory.

Referring now to Figure 7, operations for purchasing and selling goods and services to consumers according to the present invention will now be described. It will be understood that these operations are preferably implemented by stored programs which execute on the CPU 144 of the consumer terminal 114 and the representative terminal 12A-12Y.

As shown in block 162, a CD-ROM is manufactured and distributed to consumers. Due to the high capacity storage of the CD-ROM, many catalogs from many sources may be included on a single CD-ROM disk. The catalogs can include audio, video, animation and text. Also included on the CD-ROM are templates which are used for ordering goods or services. A sample template is shown in Figure 8. The CD-ROM is preferably distributed periodically, so that the latest versions of catalogs are available, and new catalogs can be added as desired. The CD-ROM thus can be thought of as an "electronic shopping mall".

At block 164, the CD-ROM is received by the consumer and is inserted into the CD-ROM drive 122 when the consumer wishes to purchase goods or services. At block 166, the CD-ROM is browsed using the wireless remote control. Menu selections may be used to select a catalog to be browsed through. More sophisticated

-22-

techniques may be also used to search for particular goods and services, regardless of source. Other techniques for browsing through the contents of the CD-ROM are well known to those having skill in the art, and need not be described further herein.

Referring to block 168, during the browsing session, the consumer decides that an order is to be placed or wishes to speak to a representative for information. At block 172, the consumer contacts the representative terminal. The consumer may contact the representative terminal using telephone 154, by dialing a number for the particular goods or services which is stored in the CD-ROM 142 and is displayed on television 118. Alternatively, the remote control may be used to automatically dial a number for selected goods based on consumer selection of an "ORDER" choice via the remote control. In this case, telephone 154 and multiplexer/modem 152 may be used to automatically contact the appropriate representative terminal.

Referring now to block 174, upon contacting the representative terminal, the representative terminal and the consumer terminal are linked for data transmission therebetween. This operation was already described in connection with Figures 1-4 and will not be described again. Then, referring to block 176, the representative terminal seizes control of the consumer terminal as already described in connection with Figures 1-4. While discussing the purchase with the consumer, the representative at the representative terminal generates ordering information using templates stored on the CD-ROM 142. It will be understood by those having skill in the art that the consumer's name, address, telephone number and credit card information may be prestored in the consumer terminal 114. In this case, the representative at the representative terminal may remotely control the consumer terminal 114 to access and display this information and verify its

-23-

accuracy. Alternatively, the consumer may verbally provide this information to the representative at the representative terminal, who types this information into the representative terminal keyboard. This
5 information is then displayed on the television 118 via the consumer terminal using the templates which are stored on the CD-ROM. Once this information is verified, the representative terminal causes the consumer terminal to transmit the order information to
10 the representative terminal at block 182 and the transaction is complete. Goods and services are then delivered to the consumer, using conventional delivery channels.

Accordingly, the present invention creates an
15 "electronic shopping mall". A wide variety of goods and services are available for purchase by a consumer who need only know how to operate a television remote control, without sacrificing human interaction during the transaction.

20 In the drawings and specification, there have been disclosed typical preferred embodiments of the invention and, although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation, the scope of the
25 invention being set forth in the following claims.

-24-

THAT WHICH IS CLAIMED:

1. A method of purchasing goods and services by consumers using a network of consumer terminals and representative terminals, comprising the steps of:

- 5 receiving a removable media including a plurality of catalogs of goods and services from a plurality of sources;
coupling said removable media to a consumer terminal;
10 browsing through at least one of the plurality of catalogs of goods and services, using said consumer terminal;
selecting goods or services to be purchased from at least one of said plurality of catalogs, using
15 said consumer terminal;
initiating contact with a representative terminal which is associated with the selected goods or services;
linking said representative terminal with
20 said consumer terminal for data communication therebetween;
seizing control of said consumer terminal by the representative terminal so that the representative terminal remotely controls operation of the consumer
25 terminal; and
transmitting ordering information from said consumer terminal to said representative terminal under control of said representative terminal, to thereby purchase goods or services.

- 30 2. A method according to Claim 1 wherein said transmitting step comprises the step of transmitting ordering information from said consumer terminal to said representative terminal using templates which are stored at the consumer terminal.

-25-

3. A method according to Claim 1:

wherein said consumer terminal includes a user activated wireless remote control;

5 wherein said browsing step comprises the step of browsing through at least one of the plurality of catalogs of goods and services via user activation of said wireless remote control; and

10 wherein said selecting step comprises the step of selecting goods or services to be purchased from at least one of said plurality of catalogs via user activation of said wireless remote control.

4. A method according to Claim 1 wherein said initiating step is preceded by the step of instructing a user of said consumer terminal to
15 initiate telephone contact with said representative terminal.

5. A method according to Claim 1 wherein said initiating step comprises the step of automatically initiating contact with said
20 representative terminal in response to selection of goods or services.

6. A method according to Claim 1 wherein the following step is performed between said linking step and said transmitting step:
25 generating ordering information at said consumer terminal, using templates which are stored in removable media.

7. A method according to Claim 1 wherein said initiating step comprises the step of initiating
30 telephone contact with a representative terminal which is associated with the selected goods or services.

-26-

8. A method according to Claim 1 wherein said receiving a removable media step comprises the step of receiving a CD-ROM including a plurality of catalogs of goods and services from a plurality of sources.

9. A method according to Claim 1 wherein said seizing control step comprises the step of causing an input device at the representative terminal to remotely control the retrieval of stored ordering templates at the consumer terminal and to display the retrieved ordering templates via the consumer terminal.

10. A method of selling goods and services to consumers using a network of consumer terminals and representative terminals, comprising the steps of:

15 distributing to consumers a removable media including a plurality of catalogs of goods and services from a plurality of sources and a plurality of templates for ordering the goods and services;

accepting contact from a consumer terminal at

20 a representative terminal;

linking said representative terminal with said consumer terminal for data communication therebetween;

seizing control of said consumer terminal by

25 the representative terminal so that the representative terminal remotely controls operation of the consumer terminal;

generating ordering information at said consumer terminal under control of said representative

30 terminal using said templates which are included in said removable media; and

receiving ordering information from said consumer terminal at said representative terminal under control of said representative terminal, to thereby

35 sell goods or services.

-27-

11. A method according to Claim 10 wherein said accepting step comprises the step of accepting telephone contact from said consumer terminal.

5 12. A method according to Claim 10 wherein said distributing step comprises the step of distributing to consumers a CD-ROM including a plurality of catalogs of goods and services from a plurality of sources and a plurality of templates for ordering the goods and services.

10 13. A method according to Claim 10 wherein said seizing control step comprises the step of causing an input device at the representative terminal to remotely control the retrieval of stored ordering templates at the consumer terminal and to display the
15 retrieved ordering templates via the consumer terminal.

14. A system for selling and purchasing goods and services by consumers, comprising:

a plurality of consumer terminals and a plurality of representative terminals;

20 each of said consumer terminals comprising:
means for receiving a removable media including a plurality of catalogs of goods and services from a plurality of sources;

25 means for controlling said consumer terminal to browse through said removable media and to select goods or services to be purchased from at least one of said plurality of catalogs;

30 means for linking said consumer terminal to a representative terminal which is associated with said selected goods or services, for data communication therebetween, in response to consumer

-28-

selection of goods or services to be
purchased;
means for allowing a linked
representative terminal to seize control
5 of said consumer terminal so that said
representative terminal remotely
controls operation of said consumer
terminal; and
means for transmitting ordering
10 information from the consumer terminal
to the linked representative terminal;
each of said representative terminals
comprising:
means for linking said representative
15 terminal to said consumer terminal, for
data communication therebetween, in
response to consumer selection of goods
or services to be purchased;
means for causing a linked
20 representative terminal to seize control
of said consumer terminal so that said
representative terminal remotely
controls operation of said consumer
terminal; and
25 means for receiving ordering information
from a linked consumer terminal.

15. A system according to Claim 14 wherein
said receiving means comprises a CD-ROM reader.

16. A system according to Claim 14:
30 wherein each of said consumer terminals
further comprises a user activated wireless remote
control; and
wherein said controlling means comprises
means for controlling said terminal to browse through
35 said removable media and to select goods or services to

-29-

be purchased from at least one of said plurality of catalogs in response to user activation of said wireless remote control.

17. A system according to Claim 14 wherein
5 said means for linking said consumer terminal to a representative terminal comprises a multiplexer/modem.

18. A system according to Claim 14 wherein each of said consumer terminals further comprises a telephone interface.

10 19. A system according to Claim 14 wherein said causing means comprises means for causing an input device at the representative terminal to remotely control the retrieval of stored ordering templates at said consumer terminal and to display the retrieved
15 ordering template via said consumer terminal.

20. A consumer terminal for purchasing goods and services, comprising:

a media reader for receiving a removable media including a plurality of catalogs of goods and
20 services from a plurality of sources;

a wireless remote control, for controlling said media reader in response to user commands, to browse said plurality of catalogs;

25 data communications means for linking said consumer terminal to a representative terminal for data communication therebetween;

means for allowing a linked representative terminal to seize control of said consumer terminal so that the representative terminal remotely controls
30 operation of said consumer terminal; and

means, responsive to said allowing means, for generating ordering information using templates which are included in said removable media, under remote

-30-

control of said representative terminal, and for transmitting the generated ordering information to said representative terminal via said data communications means, under remote control of said representative
5 terminal.

21. A consumer terminal according to Claim 20 wherein said media reader comprises a CD-ROM reader.

22. A consumer terminal according to Claim 20 wherein said data communications means comprises a
10 multiplexer/modem.

23. A consumer terminal according to Claim 20, further comprising a telephone for audio communications between a user at said consumer terminal and a representative at a representative terminal.

15 24. A consumer terminal for purchasing goods and services, comprising:

a media reader for receiving a removable media including a plurality of catalogs of goods and services from a plurality of sources;

20 a wireless remote control, for controlling said media reader in response to user commands, to browse said plurality of catalogs; and

data communications means for linking said consumer terminal to a representative terminal for data
25 communication therebetween, in response to user commands at said wireless remote control.

25. A consumer terminal according to Claim 24 wherein said media reader comprises a CD-ROM reader.

26. A consumer terminal according to Claim
30 24 wherein said data communications means comprises a multiplexer/modem.

-31-

27. A consumer terminal according to Claim 24, further comprising a telephone for audio communications between a user at said consumer terminal and a representative at a representative terminal.

5 28. A consumer terminal for purchasing goods and services, comprising:

 a media reader for receiving a removable media including a plurality of catalogs of goods and services from a plurality of sources;

10 means for controlling said media reader in response to user commands, to browse said plurality of catalogs;

 data communications means for linking said consumer terminal to a representative terminal for data
15 communication therebetween;

 means for allowing a linked representative terminal to seize control of said consumer terminal so that the representative terminal remotely controls operation of said consumer terminal; and

20 means, responsive to said allowing means, for generating ordering information using templates which are included in said removable media, under remote control of said representative terminal, and for transmitting the generated ordering information to said
25 representative terminal via said data communications means, under remote control of said representative terminal.

29. A consumer terminal according to Claim 28 wherein said media reader comprises a CD-ROM reader.

30 30. A consumer terminal according to Claim 28 wherein said data communications means comprises a multiplexer/modem.

-32-

31. A consumer terminal according to Claim 28, further comprising a telephone for audio communications between a user at said consumer terminal and a representative at a representative terminal.

5 32. A method of purchasing goods and services by consumers using a network of consumer terminals and representative terminals, comprising the steps of:

 receiving a removable media including
10 information concerning goods and services:
 coupling said removable media to a consumer terminal;
 selecting goods or services to be purchased using said consumer terminal having said removable
15 media coupled thereto;
 initiating contact with a representative terminal which is associated with the selected goods or services;
 linking said representative terminal with
20 said consumer terminal for data communication therebetween;
 seizing control of said consumer terminal by the representative terminal so that the representative terminal remotely controls operation of the consumer
25 terminal; and
 generating ordering information under control of said representative terminal, to thereby purchase goods or services.

33. A method according to Claim 32 wherein
30 said generating step comprises the step of generating ordering information under control of said representative terminal using templates which are stored at the consumer terminal.

- 33 -

34. A method according to Claim 32 wherein said initiating step is preceded by the step of instructing a user of said consumer terminal to initiate telephone contact with said representative terminal.

35. A method according to Claim 32 wherein said initiating step comprises the step of automatically initiating contact with said representative terminal in response to selection of goods or services.

36. A method according to Claim 32 wherein said seizing control step comprises the step of causing an input device at the representative terminal to remotely control the retrieval of stored ordering templates at the consumer terminal and to display the retrieved ordering templates via the consumer terminal.

37. A method of selling goods and services to consumers using a network of consumer terminals and representative terminals, comprising the steps of:

20 distributing to consumers a removable media including information concerning goods and services;

 accepting contact from a consumer terminal at a representative terminal;

 linking said representative terminal with

25 said consumer terminal for data communication therebetween;

 seizing control of said consumer terminal by the representative terminal so that the representative terminal remotely controls operation of the consumer

30 terminal; and

 generating ordering information under control of said representative terminal, to thereby sell goods or services.

-34-

38. A method according to Claim 37 wherein said accepting step comprises the step of accepting telephone contact from said consumer terminal.

39. A method according to Claim 37 wherein
5 said seizing control step comprises the step of causing an input device at the representative terminal to remotely control the retrieval of the information concerning goods and services at the consumer terminal and to display the retrieved information concerning
10 goods and services via the consumer terminal.

1/6

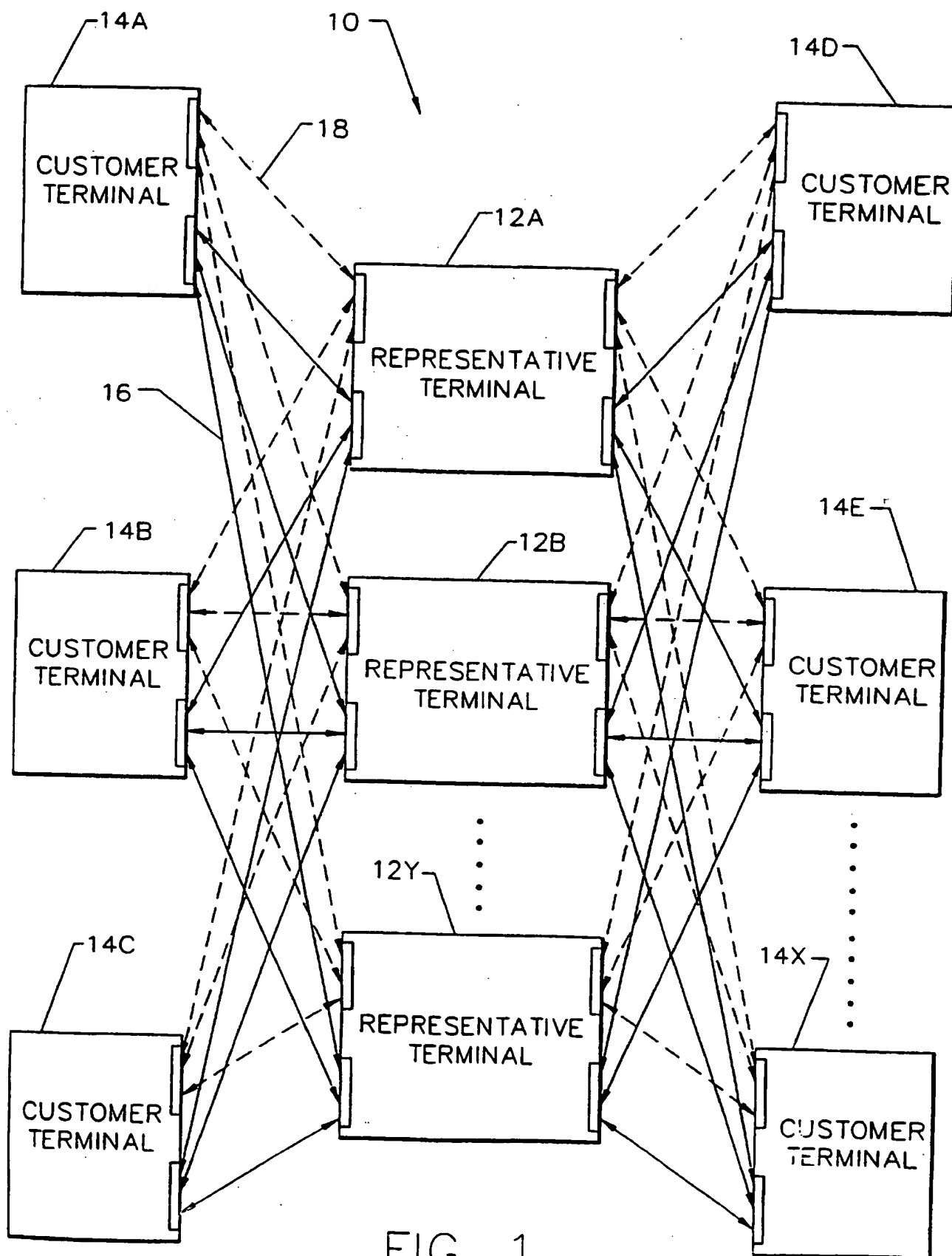


FIG. 1.

2/6

FIG. 2A.

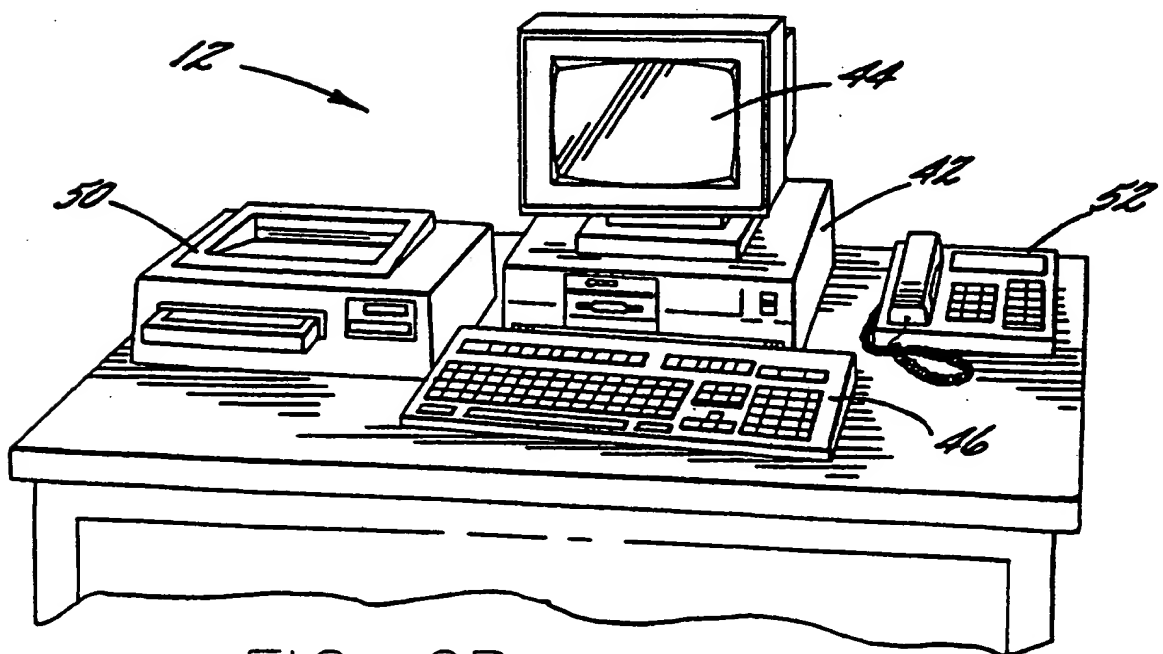
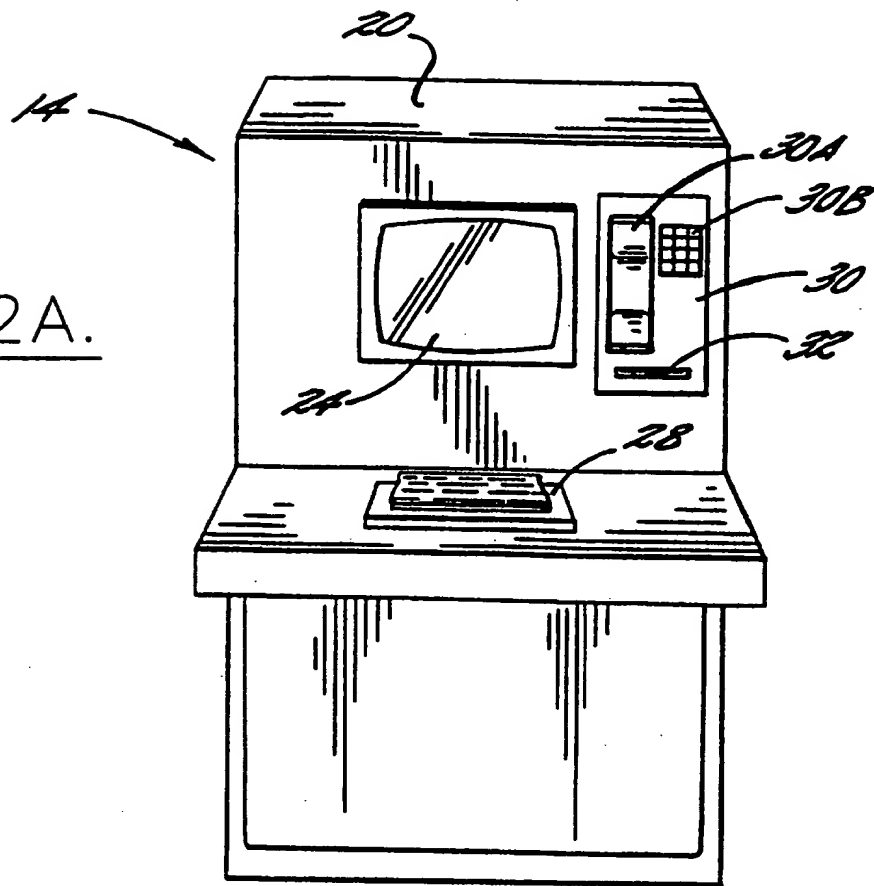


FIG. 2B.

3/6

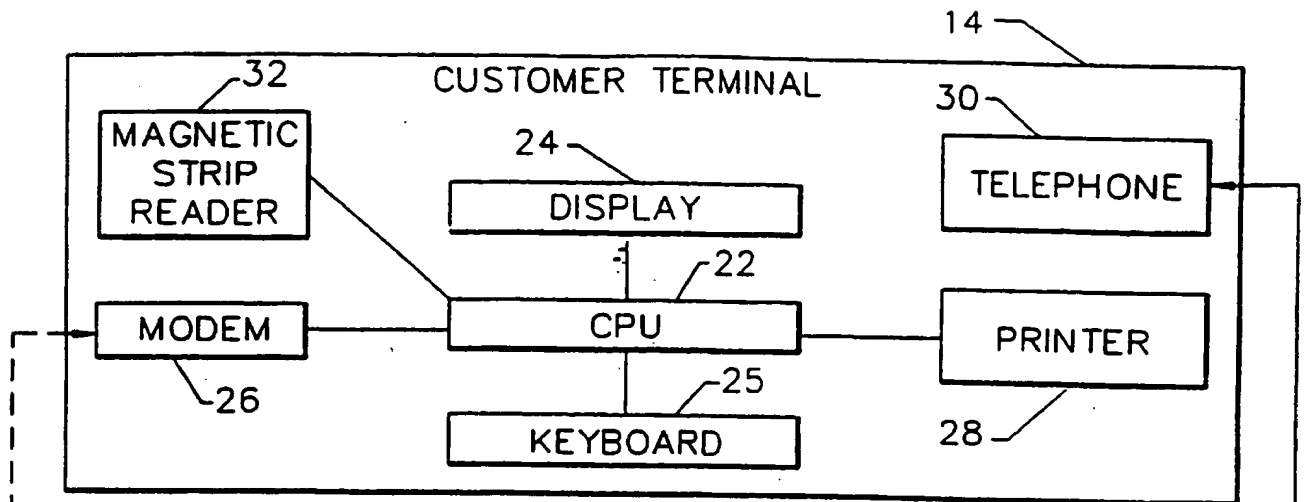


FIG. 3A.

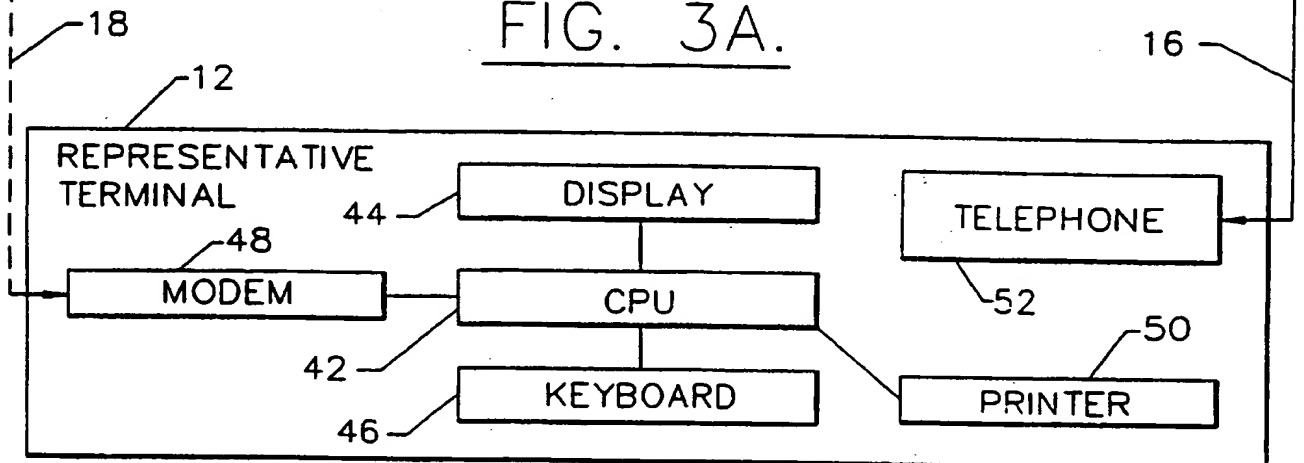


FIG. 3B.

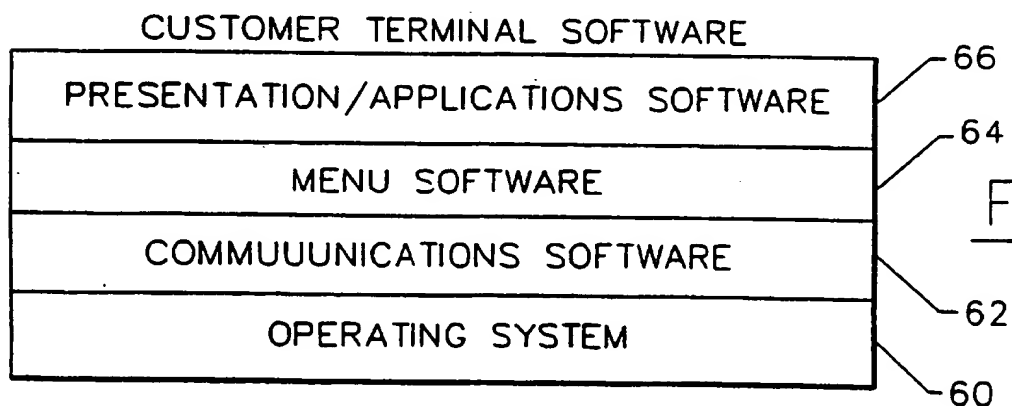


FIG. 4A.

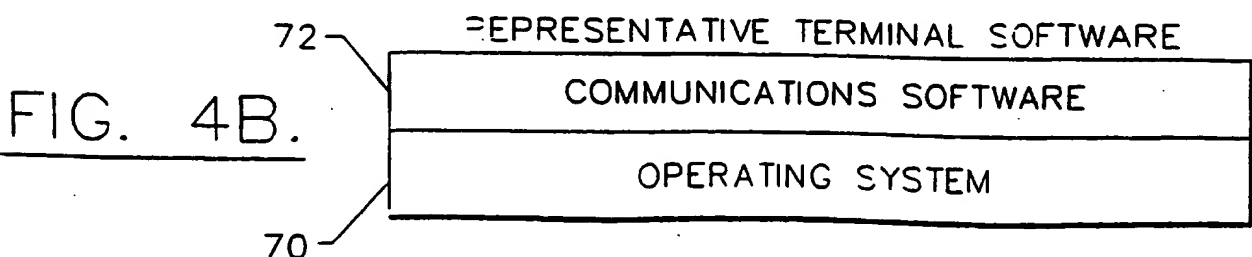
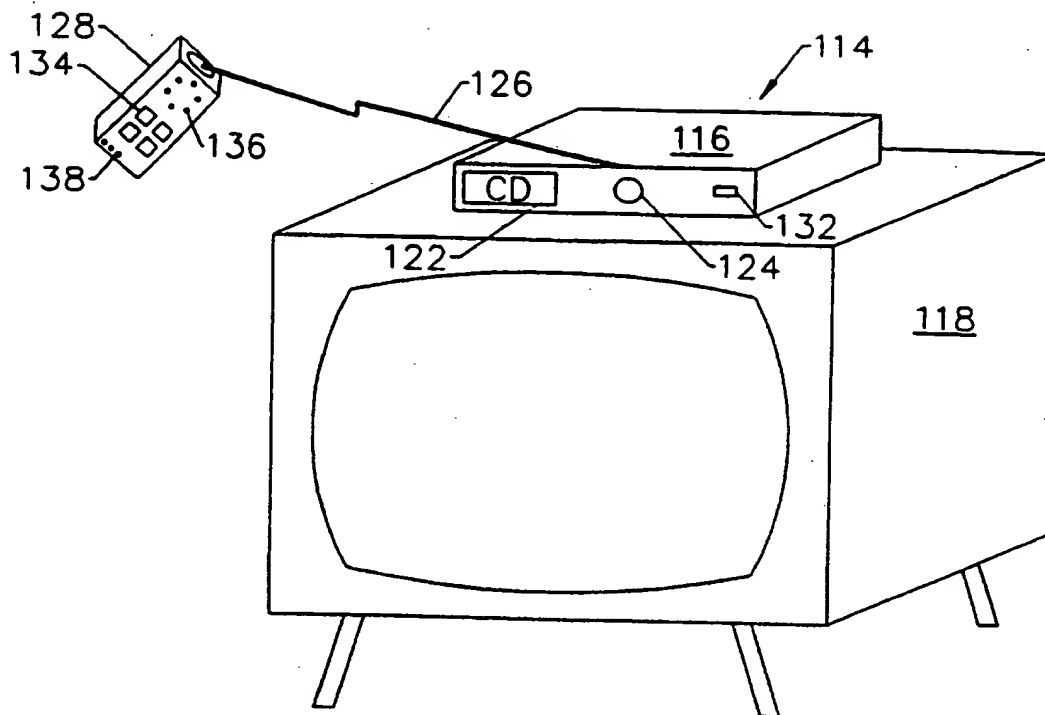
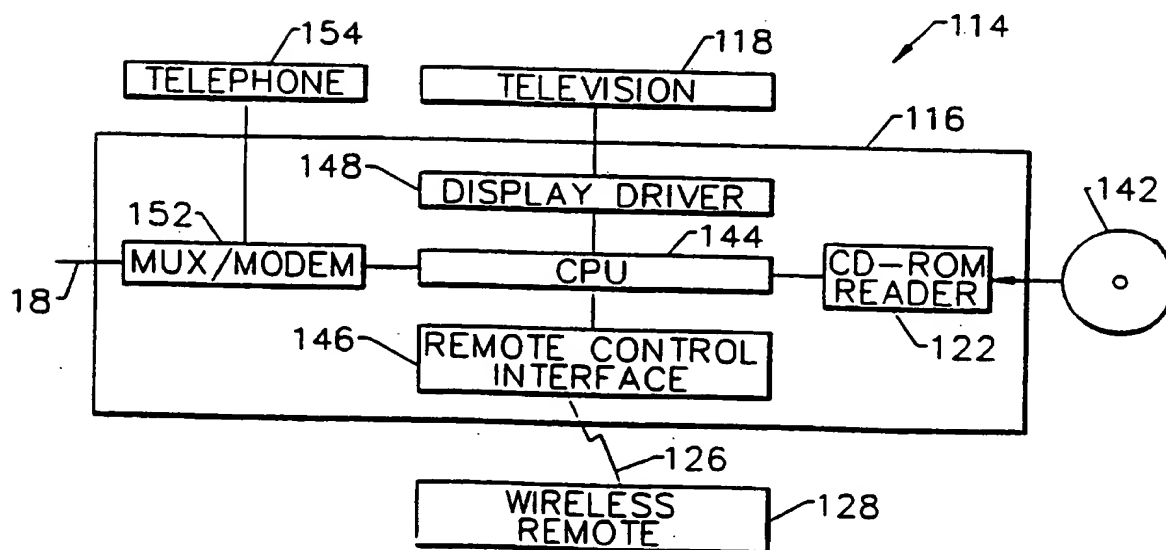


FIG. 4B.

FIG. 5.FIG. 6.

5/6

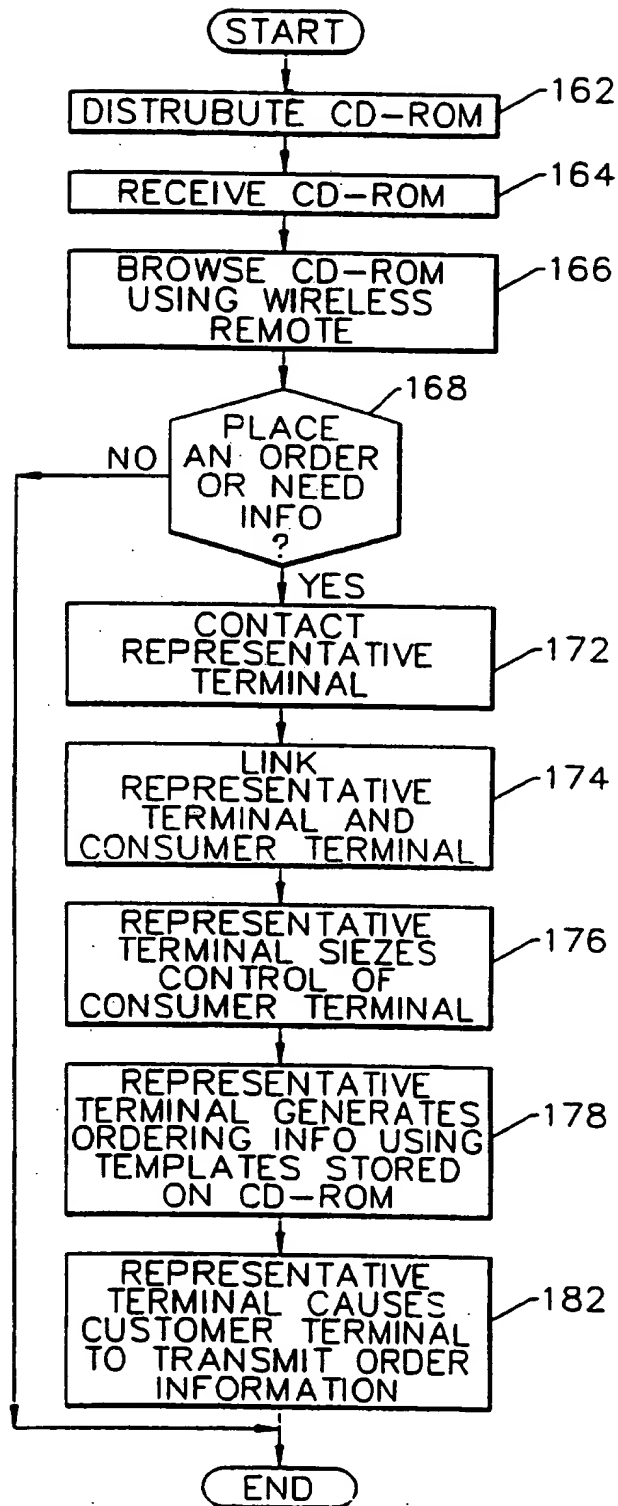


FIG. 7.

ORDER FORM

▶

NAME

ADDRESS

CITY

STATE

ZIP

PHONE

FIG. 8.

SUBSTITUTE SHEET (RULE 26)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 95/11890

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US,A,5 231 571 (D'AGOSTINO) 27 July 1993 cited in the application see column 3, line 59 - column 4, line 22 see column 13, line 11 - column 16, line 36 --- -/--	1,4,5,7, 9-11,13, 14,17, 18,20, 22-24, 26-28, 30-32, 34-39

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *A* document member of the same patent family

Date of the actual completion of the international search

25 January 1996

Date of mailing of the international search report

09.02.96

Name and mailing address of the ISA

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Fax (+31-70) 340-3016

Authorized officer

Pottiez, M

INTERNATIONAL SEARCH REPORT

International Application No
PCI/US 95/11890

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information on patent family members

Int: mal Application No

PC1/US 95/11890

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		CA-A- 1268860	08-05-90
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